AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for delivering permeant substances through a biological membrane of an animal comprising applying at least one heated probe element capable of conductively delivering thermal energy via direct contact to the biological membrane to cause the ablation of some portion of the membrane to form a plurality of delivery openings in the membrane, wherein an opening depth of the majority of said delivery openings falls within the range between about 40 and about 90 microns, ~~and~~ delivering a permeant by placing a patch comprising a permeant over the plurality of delivery openings, ~~wherein the depth is characterized~~ and characterizing the depth by a means selected from the group consisting of, a microscope and digital depth indicator, infusion of a tracer compound, and trans-epidermal water loss measurement (TEWL).

2-6. (Canceled)

7. (Previously Presented) The method of claim 1 wherein the opening depth of a majority of said delivery openings falls within the range of about 50 to about 70 microns.

8. (Previously Presented) The method of claim 7 wherein 75% of said delivery openings have an opening depth falling within the range of about 50 to about 70 microns.

9. (Previously Presented) The method of claim 8 wherein 75% of said delivery openings have an opening depth falling within the range of about 55 microns to about 65 microns.

10. (Previously Presented) The method of claim 1 wherein said delivery openings have a range of opening depths falling within one standard deviation of about 50 microns to about 70 microns.

11. (Original) The method of claim 10 wherein said delivery openings have a range of opening depths falling within one standard deviation of about 60 microns.

12. (Original) The method of claim 6 wherein said delivery openings have a range of opening depths falling within one standard deviation of about 90 microns.

13. (Previously Presented) The method of claim 1 wherein the plurality of delivery openings are formed by a planar array microporation device.

14. (Previously Presented) The method of claim 1 wherein the heated probe comprises an electrically heated resistive element capable of ablating the biological membrane.

15. (Previously Presented) The method of claim 1 wherein the plurality of delivery openings are formed by microporation conducted with positive pressure being present between a microporator and said membrane.

16. (Original) The method of claim 15 wherein said positive pressure is applied manually by pressing down on said microporator when being activated.

17. (Original) The method of claim 15 wherein said positive pressure results from a vacuum of about 0.25 to about 0.80 bar being applied between said microporator and said membrane.

18. (Original) The method of claim 17 wherein said vacuum is about 0.50 bar.

19. (Original) The method of claim 1 wherein said delivery of said permeant substance results in a blood serum profile for said permeant substance that mimics a blood serum profile as if the permeant substance had been delivered subcutaneously.

20. (Original) The method of claim 1 wherein said biological membrane is skin.

21. (Currently Amended) A method for delivering drugs transdermally into a biological membrane of an animal comprising ablating a plurality of delivery openings through a membrane, wherein said delivery openings have a distribution resulting in a bell-shaped curve with said delivery openings having a mean opening depth of between about 40 and about 90 microns, ~~and~~ delivering a drug by placing a patch comprising a drug over the plurality of delivery openings, ~~wherein the depth is characterized~~ and characterizing the depth by a means selected from the group consisting of, a microscope and digital depth indicator, infusion of a tracer compound, and trans-epidermal water loss measurement (TEWL).

22. (Original) The method of claim 21 wherein said delivery openings have a mean opening depth of about 50 and about 70 microns.

23. (Original) The method of claim 22 wherein said delivery openings have a mean opening depth of about 55 to about 65 microns.

24. (Original) The method of claim 23 wherein said delivery openings have a mean opening depth of about 60 microns.

25. (Original) The method of claim 21 wherein said delivery openings have a mean opening depth of about 90 microns.

26. (Original) The method of claim 21 wherein a majority of said delivery openings have a mean opening depth falling within the range of about 40 and about 90 microns.

27. (Original) The method of claim 26 wherein the opening depth of a majority of said delivery openings falls within the range of about 50 to about 70 microns.

28. (Previously Presented) The method of claim 27 wherein 75% of said delivery openings have an opening depth falling within the range of about 50 to about 70 microns.

29. (Previously Presented) The method of claim 28 wherein 75% of said delivery openings have an opening depth falling within the range of about 55 microns to about 65 microns.

30. (Original) The method of claim 26 wherein said delivery openings have a range of opening depths falling within one standard deviation of about 50 microns to about 70 microns.

31. (Original) The method of claim 30 wherein said delivery openings have a range of opening depths falling within one standard deviation of about 60 microns.

32. (Original) The method of claim 21 wherein said delivery openings have a range of opening depths falling within one standard deviation of about 90 microns.

33. (Original) The method of claim 21 wherein said delivery openings is formed by a planar array microporation device.

34. (Previously Presented) The method of claim 21 wherein said delivery openings are formed by a microporator comprising a heated probe element capable of conductively delivering thermal energy via direct contact to a biological membrane to cause the ablation of some portion of the membrane deep enough to form a micropore.

35. (Original) The method of claim 21 wherein said delivery openings are formed by microporation conducted with positive pressure being present between a microporator and said membrane.

36. (Original) The method of claim 35 wherein said positive pressure is applied manually by pressing down on said microporator when being activated.

37. (Original) The method of claim 35 wherein said positive pressure results from a vacuum of about 0.25 to about 0.80 bar being applied between said microporator and said membrane.

38. (Original) The method of claim 37 wherein said vacuum is about 0.50 bar.

39. (Original) The method of claim 21 wherein said delivery of said permeant substance results in a blood serum profile for said permeant substance that mimics a blood serum profile as if the permeant substance had been delivered subcutaneously.

40. (Original) The method of claim 21 wherein said biological membrane is skin.

41-75. (Canceled)

76. (Original) The method of claim 1 wherein said permeant is insulin.

77. (Original) The method of claim 1 wherein said permeant is hydromorphone.

78. (Original) The method of claim 21 wherein said permeant is insulin.

79. (Original) The method of claim 21 wherein said permeant is hydromorphone.

80. (Canceled)

81 (Canceled)

82. (Previously Presented) The method of claim 34, wherein the heated probe comprises an electrically heated resistive element capable of ablating the biological membrane.